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10/733,813	12/12/2003	Eric Le Bars	4590-253	8845

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EXAMINER	
FINDLEY, CHRISTOPHER G	
ART UNIT	**PAPER NUMBER**
2621	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/733,813	LE BARS ET AL.	
	Examiner	Art Unit	
	CHRISTOPHER FINDLEY	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10/24/2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 10/24/2008 have been fully considered but they are not persuasive.

2. Re claim 1, the Applicant contends that the prior art cited fails to teach or suggest starting the decoding of the second signal by choosing from this second signal the closest I or P frame to the editing point. However, the Examiner respectfully disagrees. Although the examples shown in Figs. 4-7 show an I or P frame just next to the editing point, these figures also show other I and P frames further from the editing point than the adjacent I or P frame. Therefore, the examples all indicate choosing the closest I or P frame of the second stream for starting reproduction of the post-splice portion of the spliced stream, since one of the further I or P frames is not used.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teichmer (US 6380991 B1) in view of Takahashi (US 5912709 A).

Re **claim 1**, Teichmer discloses a method of splicing digital signals comprising at least two types of data packets: I and P packets of complete data and B packets of differential data, said method comprising the following steps: receiving a first digital signal s1 (Teichmer: Fig. 2, stream 1); receiving a second digital signal s2 (Teichmer: Fig. 2, stream 2); receiving a splicing command Cc(T.sub.0) (Teichmer: Fig. 2, "GOP boundary" labeled on stream 1 indicates the start of a splicing operation); transmitting the first signal s1 before the splicing indicated by the splicing command Cc(T.sub.0) (Teichmer: Fig. 2, the portion of the Freeze Splice stream before the (previous GOP extended) section).

Teichmer discloses that transmission of the second signal s2 starts with the I packet of complete data closest following the instant To indicated by the splicing command Cc(To) in such a way that the reproduction of the second signal s2 starts with the reproduction of the I packet of complete data, but Teichmer does not explicitly disclose that transmission of the second signal s2 may start with the I or P packet of complete data closest to (either before or after) the instant To indicated by the splicing command Cc(To). However, Takahashi discloses a method and apparatus for editing or mixing compressed pictures, wherein upon selection of an editing point, the portion of the final edited stream taken from the second input stream may begin with a frame that has been derived from the first P frame following the editing point (Takahashi: Figs. 4(a)-4(c) and column 6, lines 9-21, the P frame right after the editing point is recoded as an I frame; Figs. 5(a)-5(d) and column 6, line 64, through column 7, line 12, the P frame right after the editing point is recoded as an I frame) or the portion of the final edited

stream taken from the second input stream may begin with a frame that has been derived from the first I or P frame preceding the editing point (Takahashi: Figs. 6(a)-6(c) and column 7, lines 27-43; Figs. 7(a)-7(c) and column 7, lines 27-43). Since both Teichmer and Takahashi relate to transitioning from one input video stream to another input video stream, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the frame recoding of Takahashi with the splicing technique of Teichmer in order to control the quantization width so as to prevent buffer overflow or underflow and minimize picture quality deterioration due to re-coding (Takahashi: column 7, lines 43-51). The combined system of Teichmer and Takahashi has all of the features of claim 1.

Re **claim 2**, the combined system of Teichmer and Takahashi discloses that transmission of the first signal s1 ends with transmission of the last I, P or B packet of data received before the start of transmission of the second signal s2 in such a way that the reproduction of the first signal s1 ends with the reproduction of an I or P packet of complete data before the start of reproduction of the second signal s2 (Teichmer: Fig. 2, Freeze Stream (previous GOP extended)).

Re **claim 3**, the combined system of Teichmer and Takahashi discloses that transmission of the I or P complete data packets before the B differential data packets is configured in such a way that the reproduction of these I or P packets of complete data is performed after the reproduction of the B packets of differential data (Teichmer: Fig. 2, B frames use bi-directional prediction and the transport order is different from the presentation order).

Claim 4 has been analyzed and rejected with respect to claim 3 above.

Re **claim 5**, the combined system of Teichmer and Takahashi discloses that transmission of the first signal s1 ends with transmission of the last B packet of differential data received before the start of transmission of the second signal s2 and preceding an I or P packet of complete data (Teichmer: Fig. 2, frame B_{84} is extended through the black period).

Re **claim 6**, the combined system of Teichmer and Takahashi discloses that the first and second signals s1 and s2 comprise several types of complete data packets, including at least one I packet of introductory complete data and at least one P packet of predicted complete data, and several B packets of differential data are assembled in a group of packets GOP comprising only one I packet of complete introductory data with which the GOP starts, the group of packets enabling the P packets of predicted complete data and the B packets of differential data to be transmitted in an order different from that of the reproduction of the P and B packets (Teichmer: Fig. 2).

Re **claim 7**, the combined system of Teichmer and Takahashi discloses that transmission of the second signal s2 starts with the I packet of introductory complete data closest following the instant To indicated by the splicing command Cc(To) in such a way that the reproduction of the second signal s2 starts with the reproduction of the I packet of complete data, but Teichmer does not explicitly disclose that transmission of the second signal s2 may start with the closest I packet of complete data preceding the instant To indicated by the splicing command Cc(To). However, Takahashi discloses a

method and apparatus for editing or mixing compressed pictures, wherein upon selection of an editing point, the portion of the final edited stream taken from the second input stream may begin with a frame that has been derived from the first I frame preceding the editing point (Takahashi: Figs. 6(a)-6(c) and column 7, lines 27-43). Since both Teichmer and Takahashi relate to transitioning from one input video stream to another input video stream, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the frame recoding of Takahashi with the splicing technique of Teichmer in order to control the quantization width so as to prevent buffer overflow or underflow and minimize picture quality deterioration due to re-coding (Takahashi: column 7, lines 43-51).

Re **claim 8**, the combined system of Teichmer and Takahashi discloses that the first signal s1 and the second signal s2 are video signals (Teichmer: Abstract section, lines 1-6).

5. Claims 9-15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teichmer (US 6380991 B1) in view of Takahashi (US 5912709 A) as applied to claims 1-8 above, and further in view of Fox et al. (US 6181383 B1).

Re **claim 9**, the combined system of Teichmer and Takahashi discloses a majority of the features of claim 9, as discussed above in claim 1, but does not explicitly disclose that the first signal s1 and the second signal s2 further comprise audio frames. However, Fox discloses a method for preserving synchronization of audio and video presentation when splicing transport streams, where the transport stream includes both

video and audio data (Fox: Fig. 2). Since Teichmer, Takahashi, and Fox relate to splicing media streams, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the frame splicing of the combined system of Teichmer and Takahashi with the audio/video synchronization of Fox in order to fill the video gap with repeated frames when the audio component of the first stream extends beyond the end of the video component when splicing with a second stream (Fox: Fig. 4, gap 440). The combined system of Teichmer, Takahashi, and Fox has all of the features of claim 9.

Claim 10 has been analyzed and rejected with respect to claim 9 above.

Re **claim 11**, the combined system of Teichmer, Takahashi, and Fox discloses that transmission of the second signal s2 starts with the audio frame configured to be reproduced with a picture constituted by the I packet of introductory complete data with which transmission of the second signal s2 is started (Fox: Fig. 2, access unit 224_1).

Re **claim 12**, the combined system of Teichmer, Takahashi, and Fox discloses that transmission of the first signal s1 ends with: the last audio frame starting before the instant of the start of transmission of the second signal s2 if the time interval between the start of transmission of the audio frame and the start of transmission of the second signal s2 is greater than or equal to the duration of an audio frame (Fox: Fig. 3, access unit 314_4), or, if not, the second last audio frame starting before the instant of the start of transmission of the second signal s2 (Fox: Fig. 2, access unit 214_3).

Re **claim 13**, the combined system of Teichmer, Takahashi, and Fox discloses during transmission of the first signal s1, transmission of the drift Al of the clock h1 of the first signal s1 (Fox: column 5, line 64, through column 6, line 3), and during transmission of the second signal s2, transmission of the drift .DELTA.2 of the clock h2 of the second signal s2 (Fox: column 6, lines 31-41).

Claim 14 has been analyzed and rejected with respect to claim 13 above.

Re **claim 15**, the combined system of Teichmer, Takahashi, and Fox discloses that the digital signals are MPEG-encoded (Teichmer: Abstract section, lines 1-6), comprising groups of packets constituted by groups of pictures (GOP), the packets of complete data constituted by the I and P pictures, the packets of differential data constituted by the B pictures (Teichmer: Fig. 2), and audio frames (Fox: Fig. 2).

Re **claim 17**, the combined system of Teichmer, Takahashi, and Fox discloses a first input adapted to receive a first signal s1 (Fox: Fig. 1, element 110, multiple inputs), a second input adapted to receive a second signal s2 (Fox: Fig. 1, element 110, multiple inputs), an output adapted to transmit a resulting signal formed by the first signal s1 before the splicing indicated by the splicing command Cc(T.sub.0) and the second signal s2 after the splicing indicated by the splicing command Cc(T.sub.0) (Fox: Fig. 1, element 140).

6. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Teichmer (US 6380991 B1) in view of Takahashi (US 5912709 A) as applied to claims 1-8 above, and further in view of Kelly et al. (US 6952521 B2).

Re **claim 16**, the combined system of Teichmer and Takahashi discloses a majority of the features of claim 16, as discussed above in claim 1, but does not specifically disclose watermarking of the splicing command Cc(T.sub.0) in the first signal s1, wherein reception of the splicing command comprises reading the splicing command Cc(T.sub.0) watermarked in the first signal s1*. However, Kelly discloses a method for editing digital video recordings, wherein splice point information is embedded in the transport stream (Kelly: column 3, lines 11-20) and the splice point information is processed by a microprocessor (Kelly: Fig. 2; column 7, line 62, through column 8, line 4). Since Teichmer, Takahashi, and Kelly relate to splicing media streams, one of ordinary skill in the art at the time of the invention would have found it obvious to combine Kelly's preconfigured media stream stored on a disc with the method for splicing media streams of the combined system of Teichmer and Takahashi in order to provide a constant picture display (Teichmer: Fig. 2, repeated B frames) when splicing streams during the execution of a predetermined program sequence (Kelly: column 1, lines 53-60). The combined method of Teichmer, Takahashi, and Kelly has all of the features of claim 16.

7. Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teichmer (US 6380991 B1), Takahashi (US 5912709 A), and Fox et al. (US

6181383 B1) as applied to claims 9-15 and 17 above, and further in view of Kelly et al. (US 6952521 B2).

Re **claim 18**, the combined system of Teichmer, Takahashi, and Fox discloses a majority of the features of claim 18, as discussed above in claim 17, but does not specifically disclose a watermark reader connected to the first input. However, Kelly discloses that the embedded splicing point information is read and processed by a microprocessor (Kelly: Fig. 2, uP 114 and input unit 130; column 7, line 62, through column 8, line 4). Since Teichmer, Takahashi, Fox, and Kelly all relate to splicing media streams, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the splicing methods of the combined system of Teichmer, Takahashi, and Fox with the embedded splicing point information and disc storage of Kelly in order to execute a predetermined program switching sequence (Kelly: column 1, lines 53-60). The combined method of Teichmer, Fox, and Kelly has all of the features of claim 18.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

a. System method and apparatus for seamlessly splicing data

Yoshinari (US 6567471 B1)

Method and apparatus for splicing

Anderson et al. (US 7027516 B2)

c. Information processing apparatus

Komori (US 20030123556 A1)

d. Signal processor

Saunders et al. (US 6529555 B1)

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER FINDLEY whose telephone number is (571)270-1199. The examiner can normally be reached on Monday-Friday (8:30 AM-5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on 571-272-7905. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/
Supervisory Patent Examiner, Art Unit 2621
/Christopher Findley/